

REMARKS

Claims 1, 6, 7, 9-11, 15-28 are pending in the application.

Claims 2-5, 8, and 12-14 have been cancelled.

Claims 1, 6, 7 and 15 have been allowed.

Claims 9-11, 16, 17, 20-24, 27 and 28 have been rejected.

Claims 18, 19, 25 and 26 have been objected to.

Reconsideration of the claims is respectfully requested. The Applicants make the aforementioned amendments and subsequent arguments to place this application in condition for allowance. Alternatively, the Applicants make these amendments and offer these arguments to properly frame the issues for appeal. In this Response, the Applicants make no admission concerning any now moot rejection or objection, and affirmatively deny any position, statement or averment of the Examiner that was not specifically addressed herein.

CLAIM REJECTIONS – 35 U.S.C. § 102

Claims 9-11 were rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 6,580,772 to *Pajukoski* (hereinafter “Pajukoski”). This rejection is respectfully traversed.

Claims 9-11 comprise elements related to “a finger compensator coupled to inputs of at least two arithmetical modules in a first set of arithmetical modules and at least one finger comprises an averaging unit coupled between at least two arithmetical modules in a second set of arithmetical modules, wherein at least one arithmetical module is common to the first and second sets of arithmetical modules.” The Office Action of June 23, 2010, on Page 2 contends that the filter (413) in Pajukoski teaches a finger compensator coupled to inputs of at least two arithmetical modules, which the Office Action argues is taught by elements 314 and 316. The Office Action cites Col. 5, ll. 62-72 of Pajukoski, which states:

When the filter parameters α_k to α_{k-m} have been formed, they proceed

to a filter section (413), which forms the channel estimate, and the preliminary channel coefficients c_k to c_{k-m} are multiplied by the filter parameters a_k to a_{k-m} in multipliers 402 to 412. The results of the multiplication are thereafter added together in an adder 414, as shown in the example of FIG. 1, in order to form an adaptive channel estimate \hat{c}_k .

Nowhere in the cited section of Pajukoski is there an anticipation, teaching, or suggestion of the claimed finger compensator. The cited sections of Pajukoski relate to a filter section (413) which forms a channel estimate. In contrast, the finger compensator is disclosed in the pending application in paragraphs [0022]-[0023] which are reproduced below:

[0022] FIG. 2 illustrates in block diagram form a finger 1,2,3 according to the invention comprising a finger compensator 20-25 comprising an arithmetical module 20 like for example a multiplier 20 of which a first input forms the input of said finger compensator 20-25 and of which a second input is coupled to an output of a delay introducer 23. An input of delay introducer 23 is coupled to said first input of said arithmetical module 20, of which an output is coupled to an input of a filter 21 like for example a FIR filter 21. An output of filter 21 is coupled to an input of amplitude normalizer 22, of which an output is coupled to a first input of an arithmetical module 25 like for example a multiplier 25. An output of multiplier 25 is coupled via a delay introducer 24 to a second input of arithmetical module 25 and forms an output of said finger compensator 20-25.

[0023] Said finger 1,2,3 according to the invention illustrated in FIG. 2 further comprises a known pilot channel correlator 10 (for despreading a pilot channel and generating an instantaneous phase and amplitude estimation) and a known traffic channel correlator 12 (for despreading a data channel) both controlled by a known PN tracker 11 (for estimating and adjusting a phase offset between a received signal and locally generated spreading codes, with PN meaning Pseudo Noise Code and with PN trackers as well as possible additional PN code generators, multipliers and integrators being known technologies). Inputs of said correlators 10,12 and PN tracker 11 form the input of said finger 1,2,3. An output of correlator 10 is coupled to said input of finger compensator 20-25 and to a first input of an arithmetical module 13 like for example a multiplier 13, of which a second input is coupled to said output of finger compensator

20-25 and of which an output is coupled to an input of a known averaging unit 15, like for example Weight Multiple Symbol Average (WMSA) module. An output of correlator 12 is coupled to a first input of an arithmetical module 14 like for example a multiplier 14, of which a second input is coupled to said output of finger compensator 20-25 and of which an output is coupled to a first input of an arithmetical module 16, of which a second input is coupled to an output of averaging unit 15. An output of arithmetical module 16 forms an output of said finger 1,2,3.

Nowhere in Pajukoski is the claimed "finger compensator" taught, suggested, or anticipated. Therefore, Pajukoski does not teach, suggest, or anticipate the claimed finger compensator.

Accordingly, the Applicants respectfully request that the § 102 rejection with respect to Claims 9-11, and its dependent claims, be withdrawn.

CLAIM REJECTIONS -- 35 U.S.C. § 103

Claims 9-11, 16, 20-22, 23, 27, and 28 were rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,608,858 to *Sih, et al.*, (hereinafter "Sih") in view of U.S. Patent No. 6,888,878 to *Prysby, et al.*, (hereinafter "Prysby"), and further in view of Pajukoski. The Applicants respectfully traverse the rejection.

Claims 17 and 24 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Sih, Prysby, and Pajukoski, as applied to claims 9-11 above, and further in view of U.S. Patent No. 6,947,475 to *Sendonaris, et al.*, (hereinafter "Sendonaris"). The Applicants respectfully traverse the rejection.

In *ex parte* examination of patent applications, the Patent Office bears the burden of establishing a *prima facie* case of obviousness. MPEP § 2142; *In re Fritch*, 972 F.2d 1260, 1262, 23 U.S.P.Q.2d 1780, 1783 (Fed. Cir. 1992). The initial burden of establishing a *prima facie* basis to deny patentability to a claimed invention is always upon the Patent Office. MPEP § 2142; *In re Oetiker*, 977 F.2d 1443, 1445, 24 U.S.P.Q.2d 1443, 1444 (Fed. Cir. 1992); *In re Piasecki*, 745 F.2d 1468, 1472, 223 U.S.P.Q. 785, 788 (Fed. Cir. 1984). Only when a *prima facie* case of obviousness is

established does the burden shift to the applicants to produce evidence of nonobviousness. MPEP § 2142; *In re Oetiker*, 977 F.2d 1443, 1445, 24 U.S.P.Q.2d 1443, 1444 (Fed. Cir. 1992); *In re Rijckaert*, 9 F.3d 1531, 1532, 28 U.S.P.Q.2d 1955, 1956 (Fed. Cir. 1993). If the Patent Office does not produce a *prima facie* case of unpatentability, then without more the applicants are entitled to grant of a patent. *In re Oetiker*, 977 F.2d 1443, 1445, 24 U.S.P.Q.2d 1443, 1444 (Fed. Cir. 1992); *In re Grabiak*, 769 F.2d 729, 733, 226 U.S.P.Q. 870, 873 (Fed. Cir. 1985).

A *prima facie* case of obviousness is established when the teachings of the prior art itself suggest the claimed subject matter to a person of ordinary skill in the art. *In re Bell*, 991 F.2d 781, 783, 26 U.S.P.Q.2d 1529, 1531 (Fed. Cir. 1993). To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed invention and the reasonable expectation of success must both be found in the prior art, and not based on applicant's disclosure. MPEP § 2142. In making a rejection, the examiner is expected to make the factual determinations set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 17, 148 USPQ 459, 467 (1966), viz., (1) the scope and content of the prior art; (2) the differences between the prior art and the claims at issue; and (3) the level of ordinary skill in the art. In addition to these factual determinations, the examiner must also provide "some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness." (*In re Kahn*, 441 F.3d 977, 988, 78 USPQ2d 1329, 1336 (Fed. Cir 2006) (cited with approval in *KSR Int'l v. Teleflex Inc.*, 127 S. Ct. 1727, 1741, 82 USPQ2d 1385, 1396 (2007)).

The Examiner has acknowledged that Sih and Pysby do not teach the "finger compensator" of Claims 9-11. In an attempt to cure this deficiency, the Examiner has cited Pajukoski. However, as discussed above, Pajukoski does not teach, suggest or anticipate the "finger compensator" of Claims

9-11. Therefore, the combination of Sih, Prysby, and Pajukoski does not teach, suggest, or anticipate the elements of Claims 9-11.

Accordingly, the Applicants respectfully request that the § 103 rejection with respect to Claims 9-11, and their dependent claims, be withdrawn.

ALLOWABLE SUBJECT MATTER

The Examiner objected to Claims 18, 19, 25, and 26 as being dependent upon a rejected base claim, but suggested that Claims 18, 19, 25, and 26 would be allowable if it were rewritten in independent form including all the limitations of the base and intervening claims. The Applicants thank the Examiner for this suggestion but elect not to rewrite Claims 18, 19, 25, and 26 at this time.

The Applicants thank the Examiner for the indication that Claims 1, 6, 7, and 15 are allowable. Those claims have not been amended and therefore remain in condition for allowance.

CONCLUSION

As a result of the foregoing, the Applicants assert that the remaining Claims in the Application are in condition for allowance, and respectfully request an early allowance of such Claims.

If any issues arise, or if the Examiner has any suggestions for expediting allowance of this Application, the Applicants respectfully invite the Examiner to contact the undersigned at the telephone number indicated below or at *rmccutcheon@munckcarter.com*.

The Commissioner is hereby authorized to charge any additional fees (including any extension of time fees) connected with this communication or credit any overpayment to Deposit Account No. 50-0208.

Respectfully submitted,

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